To: Pilmanis, Adrienne[apilmani@blm.gov]

Cc: Luke John Zachmann[Luke.Zachmann@nau.edu]; khmiller@blm.gov[khmiller@blm.gov]; Brett

G Dickson[Brett.Dickson@nau.edu]; Casey Addy[caddy@blm.gov]; Bradshaw,

James[jbradshaw@blm.gov]; Matthew Betenson[mbetenso@blm.gov]

From: Backer, Dana

Sent: 2017-08-21T12:56:08-04:00

Importance: Normal

Subject: Re: LCI GSENM Draft Final Report **Received:** 2017-08-21T12:56:20-04:00

L13AC00249 Mod 2.pdf

Hi Brett and Luke,

I read the draft of the report and certainly have some items to discuss with you. Primarily, the datasets used are quite old at this point and more recent data are available (AIM). As you indicated the plot stratification for AIM would change in 2014, well it changed again in 2015.

I have been holding off in responding because I need to get some background information from my supervisor and Kevin. Kevin has be in/out of office and we have not yet connected. I'm also waiting to hear back from my supervisor regarding his comments to the report.

I would like to discuss the 2015 modification to the agreement for Spatially explicit stateand-transition models to support management planning and improve the statistical efficiency and utility of the AIM Strategy at Grand Staircase-Escalante National Monument (\$35K) and get the status of this component.

The point of contact at GSENM was also a point of clarification. We were going to ask a Range Specialist to be the POC but now my supervisor as appointed me to be the POC. Again, sorry for the delay and the confusion.

Thanks Dana

Dana Backer Science Program Administrator Grand Staircase Escalante National Monument Kanab, UT 84741 435-644-1257

On Mon, Aug 21, 2017 at 10:16 AM, Pilmanis, Adrienne apilmani@blm.gov> wrote:

Hello Luke -

Darn, that all sounds really interesting, but I am no longer the PO for this agreement. It has been passed off to our new Monitoring Coordinator, Casey Addy, and Dana Backer, new GSENM Science Coordinator, is a Technical Contact.

Incidentally, I think that all three of us BLM UT folks will be in Flagstaff for the Biennial in a few weeks. Will you?

Best, Adrienne

Adrienne Pilmanis
Ecologist/ Coordinator
Colorado Plateau Native Plant Program
Bureau of Land Management
440 West 200 South, Suite 500
Salt Lake City, UT 84101
p: 801-539-4076
c: 385-315-6977
apilmani@blm.gov

On Fri, Aug 18, 2017 at 4:33 PM, Luke John Zachmann < <u>Luke.Zachmann@nau.edu</u>> wrote:

Hi Kevin and Adrienne,

I wanted to touch base quickly to see whether there's anything you'd like to follow up on regarding the final Phase I report. Adrienne, last time we spoke you mentioned the possibility of a new PO. We'd be happy to bring someone else up to speed, as necessary. Additionally, I wanted to mention some travel I'm scoping to Denver / Fort Collins in Oct. If necessary, I could also build in some travel to the BLM's headquarters in Salt Lake City. It would be great to meet up to discuss wrapping up Phase II.

Finally, we wanted to mention that there's been a lot of activity here at NAU and at Conservation Science Partners related to the development, analysis, and applications of other national monitoring datasets. Specifically, we've been working with NRCS's NRI, USFS FIA, and NPS I&M data to develop approaches that permit linking samples (even at a national scale) to the bevy of remote sensing data available in the cloud (e.g., through portals such as Earth Engine) in a way that is both flexible, fast, and repeatable, but most importantly doesn't compromise the confidentiality of the underlying data. In short, it's a way to create appendices of covariate data, including remotely sensed data, that can be linked to the monitoring data directly for analysis, inference, and reporting purposes. I've also been working closely Tom Hobbs at CSU to develop a fairly comprehensive statistical framework for analyzing data that are coming out of such programs (often from some sort of 'master sample', in which plots are visiting in a rotating panel). At any rate, there's a lot we could talk about, and certainly a considerable amount of material that may be suitable for rolling up into a phase II report and even future work.

Please let me know if you're expecting to be available in mid- to late-Oct or even early Nov as this might help me finalize travel dates.

Luke

Luke Zachmann Senior Research Specialist Lab of Landscape Ecology and Conservation Biology School of Earth Sciences and Environmental Sustainability Northern Arizona University Tel 530.214.8905: Fax 530.214.8907

On June 15, 2017 at 5:05:35 PM, Brett G Dickson (brett.dickson@nau.edu) wrote:

Hi Adrienne and Kevin,

Our apologies for the delayed delivery of this final report (on the original, 'phase I' of the work). You may know Valerie went to work for the USFS last year and Luke has moved to half time at NAU, so I've been short staffed for a while.

Nevertheless, we've pulled together the attached, draft final report for your review. We look forward to your comments and discussing when convenient.

Considering the data and results in this report, one (as-yet informal) take-home we'd like to discuss entails the idea that all information is good information as long as it is modeled appropriately. If these data did not arise from a probabilistic sampling design, or are otherwise not highly informative, then it may not be worth the expense to digitize these data (or implement in the context of a statistical model). As such, your final judgement and knowledge about the available resources, such as funding, interns, etc., will be critical as we consider moving this particular effort any further forward.

Also, all of the code used for the representation analyses and the matching is available via Bitbucket: https://bitbucket.org/lzachmann/gsenm. We can invite collaborators upon request.

In light of the delays in reporting the attached work to you, we still would be excited by the opportunity to advance the outcomes and discuss future possibilities when convenient. Thanks for your patience.

Best,
Brett
Brett G. Dickson, Ph.D.
Associate Professor

Lab of Landscape Ecology and Conservation Biology

Landscape Conservation Initiative

School of Earth Sciences and Environmental Sustainability

Northern Arizona University

Flagstaff, AZ 86011-5694

Tel 928.523.3592 - Fax 928.523.7423

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	ROOM 106	County, State, Zip)		ling Address:		00 SOUTH	, SUITE 500	<i>52</i>)
			9. PR	INCIPAL INVES	TIGATOR/ORGA	NIZATION'S PI	ROJECT OR	
7. TAXPAYER IDENTIFICA	TION NO. (TIN)		PR	OGRAM MGR. ((Name & Phone)			
B. COMMERCIAL & GOVERNMENT ENTITY (CAGE) NO.								
o. Commence A Cover	WWEITT EITHT (ONGE) IT	O .	bre	tt.dickson	n@nau.edu			
10.RESEARCH,PROJECT BLM UT Integrati Decision-Making	on of Historic &	Contemporar	ry Data	to Inform	m Assessme	nt, Moni	toring, and	
11. PURPOSE								
See Schedule								
12. PERIOD OF PERFORM	IANCE (Approximately)							
09/15/2013 throu	igh 09/30/2018							
13A.	AWARD	HISTORY		13B.			FUNDING HISTOR	RY
PREVIOUS		\$24	4,675.00	PREVIOUS				\$24,675.00
THIS ACTION		\$35	5,000.00	THIS ACTION				\$35,000.00
CASH SHARE			\$0.00		TOTAL			\$59,675.00
NON-CASH SHARE			\$0.00					
RECIPIENT SHARE			\$0.00					
тот	AL	\$59	9,675.00					
14. ACCOUNTING AND AP	PROPRIATION DATA							
PURCHASE REQUEST NO	. JOB C	RDER NO.		AM	OUNT		STATUS	
0020074630								
15. POINTS OF CONTACT	-					_		
	NAME		MAIL STO		EPHONE		E-MAIL ADDRES	S
TECHNICAL OFFICER	Kevin Miller			435-64	14-1231	khmille	r@blm.gov	
NEGOTIATOR	Melanie Beckste	ad		(801)	539-4169	mhacket	ead@blm.gov	
ADMINISTRATOR	Heranie beckste	au		(001)	333 4103	IIDECKSC	sadebini.gov	
PAYMENTS	LINDED THE AUTHORITY							
	UNDER THE AUTHORITY (
Federal Land Po 94-579	licy and Managemo	ent Act of 1	976,	43 USC. 17	'37 (b), as	s amended	d, Public Law	
17. APPLICABLE STATEM	ENT(S), IF CHECKED:			18. APPLICA	BLE ENCLOSUF	RE(S), IF CHE	CKED:	
☐ NO CHANGE IS M	IADE TO EXISTING PROVIS	SIONS		I —	OVISIONS		ECIAL CONDITIONS	
	CONDITIONS AND THE AG				QUIRED PUBLIC			
_ _	APPLY TO THIS GRANT	LING 1-01 LOIFIU			CONCU I UDLIU	THOMS AND I	L. OKIO	
	UNITED STATES OF AME	ERICA			COOPERA	TIVE AGREEN	MENT RECIPIENT	
CONTRACTING/GRANT O	ÍÁRIA	Digitally signed HDATAR DN: c US, o US. Govern		AUTHORIZE	ED REPRESENTA	TIVE		DATE

				ESTIMATED COST		
ITEM NO.	ITEM OR SERVICE (Include Specifications and Special Instructions) (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	
(A)	CFDA Number: 15.231	(0)	(5)			
	DUNS Number: 806345542+0000					
	BLM-UT Integration of historical and contemporary					
	data to inform assessment, monitoring, and					
	decision-making on the Grand Staircase-Escalante					
	National Monument					
	11. PURPOSE:					
	The purpose of this modification is to increase					
	funding will increase in the amount of \$35,000					
	for ongoing work as stated in recipient's					
	proposal package entitled Spatially explicit					
	state and transition models to support management					
	planning and improve the statistical efficiency					
	and utility of the AIM Strategy at Grand					
	Staircase Escalante National Monument, dated June					
	1, 2015. The following recipient documents are					
	incorporated herein, by reference only SF424,					
	SF424a, SF424b and budget detail and					
	justification.					
	1. Section VIII. Deliverables and Reports:					
	Reporting requirements will change to Semi-Annual					
	for both Financial and Performance reporting.					
	Semi-Annual Reporting Period:					
	Semi-annual financial and performance reports are					
	due 30 calendar days past the reporting period					
	end date and each reporting period end date					
	thereafter for the term of the agreement. Below					
	shows the reporting periods and their					
	corresponding report submission due dates					
	January 1 through June 30, submit report by July					
	30th					
	July 1 through December 31, submit report by					
	January 30th					
	The next SF425 - Federal Financial Report will					
	cover July 1 through September, so recipient can					
	get on track with the new reporting requirements.					
	Performance report will cover October 1, 2014					
	Continued					

				ESTIMATED COST		
ITEM NO.	ITEM OR SERVICE (Include Specifications and Special Instructions) (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	
	through September 30, 2015, starting Semi-Annual					
	thereafter.					
	2. Section XI. Award Terms and Conditions: Due					
	to changes to Federal grant regulations on					
	December 26, 2013, the Office of Management and					
	Budget (OMB) issued final rules for					
	implementation of the new Uniform Guidance for					
	grants. The Uniform Guidance consolidates					
	guidance previously contained in the OMB					
	circulars governing grants administration (A-21,					
	A-87, A-110, and A-122, A-89, A-102, and A-133:					
	and the guidance in Circular A-50 on Single Audit					
	Act follow-up). The new Uniform Guidance					
	provides a streamlined format to improve clarity					
	and consistency and may affect how you receive,					
	manage, expend and report Federal grant funds.					
	Currently, guidance is posted in Title 2 of the					
	Code of Federal Regulations (CFR).					
	The U.S. Department of the Interior agencies,					
	including the Bureau of Land Management					
	implemented the new regulations on December 26,					
	2014 in the 2 CFR, Part 200â; UNIFORM					
	ADMINISTRATIVE REQUIREMENTS, COST PRINCIPLES, AND					
	AUDIT REQUIREMENTS FOR FEDERAL AWARDS					
	This replaces language in the current agreement					
	to read as follows:					
	1. Administrative and National Policy Requirements					
	a. Office of Management and Budget Circulars. By					
	accepting additional Federal funding under the					
	current Federal assistance, your organization					
	agrees to abide by the applicable OMB Circulars					
	in the expenditure of Federal funds and					
	performance under this program. OMB circulars					
	are available at the following web site:					
	http://www.whitehouse.gov/omb/circulars/					
	b. Administrative Requirements.					
	1) 2 CFR Part 200 Subparts A through D - Uniform					
	Administrative Requirements and Cost Principles.					
	Continued					

				ESTIMATED COST		
EM NO. (A)	ITEM OR SERVICE (Include Specifications and Special Instructions) (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	
()	2) 2 CFR, Subpart B, 200.112 Conflict of Interest					
	Conflict of Interest:					
	The Recipient must establish safeguards to					
	prohibit its employees and Subrecipients from					
	using their positions for purposes that					
	constitute or present the appearance of a					
	personal or organizational conflict of interest.					
	The Recipient is responsible for notifying the					
	Grants Officer in writing of any actual or					
	potential conflicts of interest that may arise					
	during the life of this award. Conflicts of					
	interest include any relationship or matter which					
	might place the Recipient or its employees in a					
	position of conflict, real or apparent, between					
	their responsibilities under the agreement and					
	any other outside interests. Conflicts of					
	interest may also include, but are not limited					
	to, direct or indirect financial interests, close					
	personal relationships, positions of trust in					
	outside organizations, consideration of future					
	employment arrangements with a different					
	organization, or decisionÂ-making affecting the					
	award that would cause a reasonable person with					
	knowledge of the relevant facts to question the					
	impartiality of the Recipient and/or					
	Recipientâ;;s employees and Subâ-recipients in					
	the matter.					
	The Grants Officer and the servicing Ethics					
	Counselor will determine if a conflict of					
	interest exists. If a conflict of interest					
	exists, the Grants Officer will determine whether					
	a mitigation plan is feasible. Mitigation plans					
	must be approved by the Grants Officer in					
	writing. Failure to resolve conflicts of					
	interest in a manner that satisfies the					
	government may be cause for termination of the					
	award.					
	Failure to make required disclosures may result					
	Continued					

				ESTIMATED COST		
ITEM NO.	ITEM OR SERVICE (Include Specifications and Special Instructions) (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	
. ,	in any of the remedies described in 2 CFR ÂS					
	200.338, Remedies for Noncompliance, including					
	suspension or debarment (see also 2 CFR Part 180).					
	Definitions:					
	This section incorporates by reference 2 CFR Part					
	200, Subpart A, Acronyms and Definitions					
	including, but not limited to the following					
	additional terms:					
	A. Conflict of Interest is defined as any					
	relationship or matter which might place the					
	Recipient, its employees, and/or its					
	Subrecipients in a position of conflict, real or					
	apparent, between their responsibilities under					
	the agreement and any other outside interests.					
	Conflicts of interest may also include, but are					
	not limited to, direct or indirect financial					
	interests, close personal relationships,					
	positions of trust in outside organizations,					
	consideration of future employment arrangements					
	with a different organization, or					
	decisionÂ-making affecting the award that would					
	cause a reasonable person with knowledge of the					
	relevant facts to question the impartiality of					
	the Recipient and/or Recipientâ;;s employees and					
	Subrecipients in the matter.					
	B. Close Personal Relationship means a Federal					
	award program employeeâ;;s childhood or other					
	friend, sibling, or other family relations that					
	may compromise or impair the fairness and					
	impartiality of the Proposal Evaluator and					
	Advisor and Grants Officer in the review,					
	selection, award, and management of a financial					
	assistance award.					
	C. Discretionary Federal Financial Assistance					
	means Federal awards including grants and					
	agreements that are awarded at the discretion of					
	the agency.					
	D. Employment means:					
	Continued					

				ESTIMATED COST		
ITEM NO.	ITEM OR SERVICE (Include Specifications and Special Instructions) (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	
()	1. In any capacity, even if otherwise					
	permissible, by any applicant or potential					
	applicant for a Federal financial assistance					
	awardí¾					
	2. Employment within the last 12 months with a					
	different organization applying for some portion					
	of the awardâ;;s approved project activities and					
	funding to complete them OR expected to apply					
	for and to receive some portion of the awardí¾					
	and/or					
	3. Employment with a different organization of					
	any member of the organization employeeâ;;s					
	household or a relative with whom the					
	organizationâ;;s employee has a close personal					
	relationship who is applying for some portion of					
	the awardâ;;s approved project activities and					
	funding to complete them OR expected to apply for					
	and to receive some portion of the award.					
	E. NonÂ-Federal entity means a State, local					
	government, Indian tribe, institution of higher					
	education, or nonprofit organization that carries					
	out a Federal award as a Recipient or					
	Subrecipient.					
	F. Recipient means a nonÂ-Federal entity that					
	receives a Federal award directly from a Federal					
	awarding agency to carry out an activity under a					
	Federal program. The term Recipient does not					
	include Subrecipients.					
	G. Subrecipient means a nonÂ-Federal entity that					
	receives a subaward from a passÂ-through entity					
	to carry out part of a Federal program, but does					
	not include an individual who is a beneficiary of					
	such program. A Subrecipient may also be a					
	recipient of other Federal awards directly from a					
	Federal awarding agency.					
	2. Program Legislation and/or Regulations.					
	a. Cost Principles: 48 CFR 1, Subpart 31.2,					
	Contracts with Commercial Organizations â;					
	Continued					

				ESTIMATED COST		
ITEM NO. (A)	ITEM OR SERVICE (Include Specifications and Special Instructions) (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	
	b. Indirect Cost Rate Negotiations. For					
	information on indirect cost rate negotiations,					
	contact the Interior Business Center (IBC)					
	Indirect Cost Services Division by telephone at					
	(916) 566-7111 or by e-mail at: ics@ibc.doi.gov.					
	Visit the IBC Indirect Cost Services Division					
	website at					
	http://www.doi.gov/ibc/services/Indirect Cost Serv					
	ices/index.cfm for more information					
	3. Standard Award Terms and Conditions					
	a. Code of Federal Regulations/Regulatory					
	Requirements, as applicable (contact your program					
	officer with any questions regarding the					
	applicability of the following):					
	1) 2 CFR Part 25, Universal Identifier and System					
	of Award Management					
	2) 2 CFR Part 170, Reporting Subawards and					
	Executive Compensation					
	3) 2 CFR Part 175, Award Term for Trafficking in					
	Persons					
	4) 2 CFR Part 1400, Government-wide Debarment and					
	Suspension (Non-procurement)					
	5) 2 CFR Part 1401, Requirements for Drug-Free					
	Workplace (Financial Assistance)					
	6) 43 CFR 18, New Restrictions on Lobbying:					
	Submission of an application also represents the					
	applicantâ;;s certification of the statements in					
	43 CFR Part 18, Appendix A, Certification					
	Regarding Lobbying.					
	7) 41 USC §4712, Pilot Program for Enhancement					
	of Recipient and Sub-recipient Employee					
	Whistleblower Protection: This requirement					
	applies to all awards issued after July 1, 2013					
	and shall be in effect until January 1, 2017.					
	8) 41 USC §6306, Prohibition on Members of					
	Congress Making Contracts with Federal					
	Government: No member of or delegate to the					
	Continued					

				ESTIMATED COST		
ITEM NO.	ITEM OR SERVICE (Include Specifications and Special Instructions) (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	
, ,	United States Congress or Resident Commissioner					
	shall be admitted to any share or part of this					
	award, or to any benefit that may arise					
	therefrom; this provision shall not be construed					
	to extend to an award made to a corporation for					
	the publicâ;;s general benefit.					
	9) Executive Order 13513, Federal Leadership on					
	Reducing Text Messaging while Driving:					
	Recipients are encouraged to adopt and enforce					
	policies that ban text messaging while driving,					
	including conducting initiatives of the type					
	described in section 3(a) of the order.					
	10) Executive Order 13043 , Increase Seat Belt					
	Use in the United States Recipients of					
	grants/cooperative agreements and/or sub-awards					
	are encouraged to adopt and enforce on-the-job					
	seat belt use policies and programs for their					
	employees when operating company-owned, rented,					
	or personally owned vehicles. These measures					
	include, but are not limited to, conducting					
	education, awareness, and other appropriate					
	programs for their employees about the importance					
	of wearing seat belts and the consequences of not					
	wearing them.					
	11). Executive Order 13658, Minimum Wage for					
	Contractors, seeks to increase the efficiency and					
	cost savings in the work performed by parties who					
	contract with the Federal Government by					
	increasing the hourly minimum wage paid by those					
	contractors (see 79 CFR 9851). The Executive					
	Order requires agencies to include a clause in					
	applicable contracts and Contract like					
	instruments that specifies, as a condition of					
	payment, that the Executive Order Minimum wage be					
	paid to workers in the performance of the					
	contract and any subcontracts.					
	Delivery Location Code: 0004276651					
	BLM-GRAND STAIRCASE					
	Continued					

				ESTIMATED COST		
ITEM NO. (A)	ITEM OR SERVICE (Include Specifications and Special Instructions) (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	
(1)	669 South Highway 89A	(-)				
	KANAB UT 84741 US					
	Account Assignment: K G/L Account: 6100.411C0					
	Business Area: L000 Commitment Item: 411C00 Cost					
	Center: LLUT030000 Functional Area:					
	L16100000.DF0000 Fund: 15XL1109AF Fund Center:					
	LLUT030000 Project/WBS: LX.SI.MONI0000 PR Acct					
	Assign Line: 01 Period of Performance: 09/15/2013 to 09/30/2018					
	reflow of reflormance. 09/13/2013 to 09/30/2010					
	Provide technical assistance to BLM in developing					
	remote sensing approaches to improving AIM					
	sampling design on Grand Staircase-Esca lante					
	National Monument					
00020	Mod L13AC00249 AIM				35,000.00	
	Obligated Amount: \$35,000.00					
	The purpose of this modification is to change the					
	period of performance begin date from 09/15/2015					
	to 09/15/2015. This is an administrative error.					
	Recipient is not required to sign on					
	administrative changes.					